

Title (en)  
Thin-film structure tapered feature.

Title (de)  
Topographische Dünnschichtstruktur mit abgeschrägten Kanten.

Title (fr)  
Structure topographique en couches minces à profil conique.

Publication  
**EP 0680079 A3 19961227 (EN)**

Application  
**EP 95302614 A 19950419**

Priority  
US 23501094 A 19940428

Abstract (en)  
[origin: EP0680079A2] A feature (18; Fig.1) in a thin-film structure (16; Fig.1) such as an AMLCD array (Fig.6) has an edge with a tapered sidewall profile (24; Fig. 1), reducing step coverage problems. The method of forming the feature includes producing (30) a layer in which local etch rates vary in the thickness direction of the layer. The layer can then be etched (34) to produce the feature with the tapered sidewall profile. The layer can be produced by physical vapor deposition. The layer can, for example, include sublayers with different etch rates (Fig.9), either due to different atomic proportions of constituents or due to different etchants. Or local etch rates can vary continuously as a result of changing deposition conditions. Differences in etch rates or differences in etchant mixtures can be used to obtain a desired angle of elevation. <IMAGE>

IPC 1-7  
**H01L 21/321**; G02F 1/133

IPC 8 full level  
**B05D 7/00** (2006.01); **H01L 21/033** (2006.01); **H01L 21/203** (2006.01); **H01L 21/306** (2006.01); **H01L 21/3213** (2006.01); **G02F 1/1362** (2006.01)

CPC (source: EP US)  
**H01L 21/0337** (2013.01 - EP US); **H01L 21/32139** (2013.01 - EP US); **G02F 1/136286** (2013.01 - EP US); **Y10S 257/92** (2013.01 - EP)

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